Release notes for ENDF/B Development n-052_Te_123 evaluation



April 26, 2017

- checkr Warnings:
 - 1. A previous error halted parsing of the current section $MAT=5234,\ MF=1,\ MT=451\ (1)$: Parsing stopped

ERROR(S) FOUND IN MAT=5234, MF= 1, MT=451
SECTION CANNOT BE CHECKED FROM SEQUENCE NUMBER 259 TO 319

- checkr Errors:
 - 1. A variable is outside the allowed ENDF range MAT=5234, MF=1, MT=451 (0): Variable range

ERROR(S) FOUND IN MAT=5234, MF= 1, MT=451
MOD = 1 OUT OF RANGE 0 - 0 RECORD NUMBER 259

2. Missing a section in directory so your directory is messed up. This error will break everything else $MAT=5234,\ MF=2,\ MT=151\ (0)$: Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 2, MT=151
SECTION 2/151 NOT IN DIRECTORY RECORD NUMBER 321

3. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5234, MF=3, MT=1 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 1
SECTION 3/ 1 NOT IN DIRECTORY RECORD NUMBER 528

4. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5234, MF=3, MT=2 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 2
SECTION 3/ 2 NOT IN DIRECTORY RECORD NUMBER 619

5. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5234, MF=3, MT=4 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 4
SECTION 3/ 4 NOT IN DIRECTORY RECORD NUMBER 684

6. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5234, MF=3, MT=16 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 16
SECTION 3/ 16 NOT IN DIRECTORY RECORD NUMBER 702

7. Missing a section in directory so your directory is messed up. This error will break everything else $MAT=5234,\ MF=3,\ MT=17\ (0)$: Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 17 SECTION 3/ 17 NOT IN DIRECTORY

RECORD NUMBER 713

8. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 3, MT = 22 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 22 SECTION 3/ 22 NOT IN DIRECTORY

RECORD NUMBER 719

9. Missing a section in directory so your directory is messed up. This error will break everything else MAT = 5234, MF = 3, MT = 28 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 28 SECTION 3/ 28 NOT IN DIRECTORY

RECORD NUMBER 733

10. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 3, MT = 32 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 32 SECTION 3/ 32 NOT IN DIRECTORY

RECORD NUMBER 743

11. Missing a section in directory so your directory is messed up. This error will break everything else MAT = 5234, MF = 3, MT = 51 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 51 SECTION 3/51 NOT IN DIRECTORY

RECORD NUMBER

12. Missing a section in directory so your directory is messed up. This error will break everything else MAT = 5234, MF = 3, MT = 52 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 52 SECTION 3/ 52 NOT IN DIRECTORY

RECORD NUMBER 769

13. Missing a section in directory so your directory is messed up. This error will break everything else MAT = 5234, MF = 3, MT = 53 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 53 SECTION 3/53 NOT IN DIRECTORY

RECORD NUMBER 786

14. Missing a section in directory so your directory is messed up. This error will break everything else MAT = 5234, MF = 3, MT = 54 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 54 SECTION 3/54 NOT IN DIRECTORY

RECORD NUMBER 803

15. Missing a section in directory so your directory is messed up. This error will break everything else MAT = 5234, MF = 3, MT = 55 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 55 SECTION 3/ 55 NOT IN DIRECTORY

RECORD NUMBER 819

16. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 3, MT = 56 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 56 SECTION 3/ 56 NOT IN DIRECTORY

RECORD NUMBER 835

17. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 3, MT = 57 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 57 SECTION 3/ 57 NOT IN DIRECTORY

RECORD NUMBER 850

18. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 3, MT = 58 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 58 SECTION 3/ 58 NOT IN DIRECTORY

RECORD NUMBER 865

19. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5234, MF=3, MT=59 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 59 SECTION 3/ 59 NOT IN DIRECTORY

RECORD NUMBER 879

20. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5234, MF=3, MT=60 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 60 SECTION 3/ 60 NOT IN DIRECTORY

RECORD NUMBER 893

21. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5234, MF=3, MT=61 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 61 SECTION 3/ 61 NOT IN DIRECTORY

RECORD NUMBER 907

22. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5234, MF=3, MT=62 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 62 SECTION 3/ 62 NOT IN DIRECTORY

RECORD NUMBER 920

23. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5234, MF=3, MT=63 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 63 SECTION 3/ 63 NOT IN DIRECTORY

RECORD NUMBER 932

24. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 3, MT = 64 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 64 SECTION 3/ 64 NOT IN DIRECTORY

RECORD NUMBER 944

25. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 3, MT = 65 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 65 SECTION 3/ 65 NOT IN DIRECTORY

RECORD NUMBER 955

26. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 3, MT = 91 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT= 91 SECTION 3/ 91 NOT IN DIRECTORY

RECORD NUMBER 966

27. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5234, MF=3, MT=102 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT=102

SECTION 3/102 NOT IN DIRECTORY

RECORD NUMBER 977

28. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5234, MF=3, MT=103 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT=103 SECTION 3/103 NOT IN DIRECTORY

RECORD NUMBER 1001

29. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5234, MF=3, MT=104 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT=104 SECTION 3/104 NOT IN DIRECTORY

RECORD NUMBER 1017

30. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5234, MF=3, MT=105 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT=105 SECTION 3/105 NOT IN DIRECTORY

RECORD NUMBER 1029

31. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5234, MF=3, MT=106 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT=106 SECTION 3/106 NOT IN DIRECTORY

RECORD NUMBER 1041

32. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 3, MT = 107 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 3, MT=107 SECTION 3/107 NOT IN DIRECTORY

RECORD NUMBER 1052

33. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5234, MF=4, MT=2 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 4, MT= 2 SECTION 4/ 2 NOT IN DIRECTORY

RECORD NUMBER 1096

34. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5234, MF=4, MT=16 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 4, MT= 16 SECTION 4/ 16 NOT IN DIRECTORY

RECORD NUMBER 1284

35. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5234, MF=4, MT=17 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 4, MT= 17 SECTION 4/ 17 NOT IN DIRECTORY

RECORD NUMBER 1295

36. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5234, MF=4, MT=22 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 4, MT= 22 SECTION 4/ 22 NOT IN DIRECTORY

RECORD NUMBER 1306

37. Missing a section in directory so your directory is messed up. This error will break everything else

 $MAT=\bar{5}234$, MF=4, MT=28 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 4, MT= 28 SECTION 4/ 28 NOT IN DIRECTORY

RECORD NUMBER 1317

38. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5234, MF=4, MT=32 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 4, MT= 32 SECTION 4/ 32 NOT IN DIRECTORY

RECORD NUMBER 1328

39. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5234, MF=4, MT=51 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 4, MT= 51 SECTION 4/ 51 NOT IN DIRECTORY

RECORD NUMBER 1339

40. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 4, MT = 52 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 4, MT= 52 SECTION 4/ 52 NOT IN DIRECTORY

RECORD NUMBER 1369

41. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 4, MT = 53 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 4, MT= 53 SECTION 4/ 53 NOT IN DIRECTORY

RECORD NUMBER 1396

42. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 4, MT = 54 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 4, MT= 54 SECTION 4/ 54 NOT IN DIRECTORY

RECORD NUMBER 1426

43. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 4, MT = 55 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 4, MT= 55 SECTION 4/ 55 NOT IN DIRECTORY

RECORD NUMBER 1456

44. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 4, MT = 56 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 4, MT= 56 SECTION 4/ 56 NOT IN DIRECTORY

RECORD NUMBER 1486

45. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 4, MT = 57 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 4, MT= 57 SECTION 4/ 57 NOT IN DIRECTORY

RECORD NUMBER 1516

46. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 4, MT = 58 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 4, MT= 58 SECTION 4/ 58 NOT IN DIRECTORY

RECORD NUMBER 1546

47. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 4, MT = 59 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 4, MT= 59 SECTION 4/ 59 NOT IN DIRECTORY

RECORD NUMBER 1575

48. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 4, MT = 60 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 4, MT= 60 SECTION 4/ 60 NOT IN DIRECTORY

RECORD NUMBER 1604

49. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 4, MT = 61 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 4, MT= 61 SECTION 4/ 61 NOT IN DIRECTORY

RECORD NUMBER 1633

50. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 4, MT = 62 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 4, MT= 62 SECTION 4/ 62 NOT IN DIRECTORY

RECORD NUMBER 1660

51. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 4, MT = 63 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 4, MT= 63 SECTION 4/ 63 NOT IN DIRECTORY

RECORD NUMBER 1685

52. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5234, MF=4, MT=64 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 4, MT= 64 SECTION 4/ 64 NOT IN DIRECTORY

RECORD NUMBER 1711

53. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 4, MT = 65 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 4, MT= 65 SECTION 4/ 65 NOT IN DIRECTORY

RECORD NUMBER 1737

54. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5234, MF=4, MT=91 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 4, MT= 91 SECTION 4/ 91 NOT IN DIRECTORY

RECORD NUMBER 1763

55. Missing a section in directory so your directory is messed up. This error will break everything else MAT=5234, MF=5, MT=16 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 5, MT= 16 SECTION 5/ 16 NOT IN DIRECTORY

RECORD NUMBER 1790

56. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 5, MT = 17 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 5, MT= 17 SECTION 5/ 17 NOT IN DIRECTORY

RECORD NUMBER 1866

57. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 5, MT = 22 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 5, MT= 22 SECTION 5/ 22 NOT IN DIRECTORY

RECORD NUMBER 1890

58. Missing a section in directory so your directory is messed up. This error will break everything else

MAT = 5234, MF = 5, MT = 28 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 5, MT= 28 SECTION 5/ 28 NOT IN DIRECTORY

RECORD NUMBER 2111

59. Missing a section in directory so your directory is messed up. This error will break everything else MAT = 5234, MF = 5, MT = 32 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 5, MT= 32 SECTION 5/ 32 NOT IN DIRECTORY

RECORD NUMBER 2214

60. Missing a section in directory so your directory is messed up. This error will break everything else MAT = 5234, MF = 5, MT = 91 (0): Directory (b)

ERROR(S) FOUND IN MAT=5234, MF= 5, MT= 91 SECTION 5/ 91 NOT IN DIRECTORY

RECORD NUMBER 2264

- psyche Warnings:
 - 1. Non-threshold reaction with Q value differing from PSYCHE's expectations FILE 3 / SECTION 103 / THE CALCULATED Q 1.00921E+06 DISSAGREES WITH THE GIVEN Q 8.34465E+05 (0): Iffy Q

FILE 3

SECTION 103

THE CALCULATED Q 1.00921E+06 DISSAGREES WITH THE GIVEN Q 8.34465E+05

- fudge-4.0 Warnings:
 - 1. Potential scattering hasn't converted, you need more L's! resonances / resolved / MultiLevel_BreitWigner (Error # 0): potentialScatteringNot-Converged

WARNING: Potential scattering hasn't converged by L=0 at E=2000.0 eV, xs[0]/xs[0]=100.0% > 0.1%

2. Cross section does not match sum of linked reaction cross sections $crossSectionSum\ label\ 0:\ total\ (Error\ \#\ 0):\ CS\ Sum.$

WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.12%

3. Cross section does not match sum of linked reaction cross sections $crossSectionSum\ label\ 1:\ (z,n)\ (Error\ \#\ 0):\ CS\ Sum.$

WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.11%

• fudge-4.0 Errors:

1. Calculated and tabulated Q values disagree.

reaction label 17: n[multiplicity:'2'] + Te122 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -7364541.582321167 eV vs -6.9376e6 eV!

2. Calculated and tabulated Q values disagree. reaction label 18: n[multiplicity:'3'] + Te121 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -17198735.71453857 eV vs -1.68097e7 eV!

3. Calculated and tabulated Q values disagree. reaction label 19: n + H1 + Sb122 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -8566047.18460083 eV vs -8135830. eV!

4. Calculated and tabulated Q values disagree. reaction label 20: n + H2 + Sb121 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -13147862.19960022 eV vs -1.26367e7 eV!

5. Calculated and tabulated Q values disagree. reaction label 21: Te124 + gamma~(Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 8988612.794219971 eV vs 9425420. eV!

6. Calculated and tabulated Q values disagree. reaction label 22: n + He4 + Sn119 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -1963804.684371948 eV vs -1.5207e6 eV!

7. Calculated and tabulated Q values disagree. reaction label 23: H1 + Sb123-s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 399207.3833770752 eV vs 834465. eV!

8. Calculated and tabulated Q values disagree. reaction label 24: $H2 + Sb122_s$ (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -6341481.08366394 eV vs -5825710. eV!

9. Calculated and tabulated Q values disagree. reaction label 25: $H3 + Sb121_{-s}$ (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -6890629.258987427 eV vs -6451560. eV!

10. Calculated and tabulated Q values disagree. reaction label 26: $He3 + Sn121_s$ (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -7263073.619064331 eV vs -6819530. eV!

11. Calculated and tabulated Q values disagree. reaction label 27: He4 + Sn120-s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 7144222.7706604 eV vs 7590490. eV!

• njoy2012 Warnings:

1. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

groupr...compute self-shielded group-averaged cross-sections (0): GROUPR/conver (0)

---message from conver---cannot do complete particle production for mt= 16 only mf4/mf5 provided

2. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

groupr...compute self-shielded group-averaged cross-sections (1): GROUPR/conver (0)

---message from conver---cannot do complete particle production for mt= 17 only mf4/mf5 provided

3. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

groupr...compute self-shielded group-averaged cross-sections (2): GROUPR/conver (0)

---message from conver---cannot do complete particle production for mt= 22 only mf4/mf5 provided

4. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

groupr...compute self-shielded group-averaged cross-sections (3): GROUPR/conver (0)

---message from conver---cannot do complete particle production for mt= 28 only mf4/mf5 provided

5. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!

groupr...compute self-shielded group-averaged cross-sections (4): GROUPR/conver (0)

---message from conver---cannot do complete particle production for mt= 32 only mf4/mf5 provided

6. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things! groupr...compute self-shielded group-averaged cross-sections (5): GROUPR/conver (0)

---message from conver---cannot do complete particle production for mt= 91 only mf4/mf5 provided